FORECASTING PRODUCTION VOLUME OF WATER PDAM BOJONEGORO BASED ON TOTAL CUSTOMER AND VOLUME OF WATER CONSUMPTION

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Abstract
Water is the source of life. Almost all human activities in the world depends with the availability of clean water. It made the water quality factors were clean and quantity of water has always been a priority as important. Bojonegoro Government established PDAM Bojoengoro in 1982 that aims to supply the water consumptions of the community. Water production is one of the major factors in water distribution services. Therefore, researchers interested to do research on forecasting production volumes of clean water in the PDAM Bojonegoro. The quantity of water supply requirements in terms of the amount of water consumed as well as the needs of the customer number. The data used for research totaled 84 data is divided into 72 data in sample and 12 data out sample. In this research, will do comparison of several methods: ARIMA, transfer function of single-input and multi-input. The results obtained after the analysis is multi-input transfer function model of the order of $b = 23$, $r = 0$ $s = 0$ and $b = 24$, $r = 0$ $s = 0$ and the noise component ARIMA ([10], 0.1) is the best model used to predict the volume of water production for the next 12 periods.

Keywords: Water Production, ARIMA, Transfer Function